WHAT IS CLAIMED IS:

1. A cardiovascular treatment method comprising the steps of:

providing an elongate flexible surgical instrument having a distal end;

inserting a distal end portion of said instrument into a vascular system of a patient;

disposing a surgical head at said distal end of said instrument so that said head is disposed adjacent to myocardium tissue of the patient;

operating said head to form a recess in the myocardium tissue; and

prior to operating said head to form said recess, measuring a thickness of said myocardium tissue, said recess having a length determined in accordance with the measured thickness of said myocardium tissue.

2. The method set forth in claim 1 wherein measuring said thickness includes generating an ultrasonic pressure wave, sensing reflected pressure waves and analyzing the reflected pressure waves to determine said thickness.

3. The method set forth in claim 2 wherein the generating of said ultrasonic pressure wave includes operating a transducer disposed at said distal end of said instrument.

4. The method set forth in claim 1 wherein measuring said thickness includes operating a magnetic resonance imaging machine.

5. The method set forth in claim 1 wherein measuring said thickness includes operating a computer aided tomography scanning machine.

6. The method set forth in claim 1 wherein measuring said thickness includes taking an echocardiogram.

7. The method set forth in claim 1 wherein said recess terminates in said myocardium tissue.

8. The method set forth in claim 1 wherein distal end portion is inserted into a left ventricle of the patient, said head being disposed adjacent to an inner side of said myocardium tissue, inside said left ventricle, said recess extending from said left ventricle into said myocardium tissue.

9. The method set forth in claim 8 wherein said recess terminates in said myocardium tissue.

10. The method set forth in claim 1 wherein said surgical head is a contact laser tip, the operating of said head including transmitting monochromatic coherent electromagnetic radiation through said tip to said myocardium tissue.

11. The method set forth in claim 1 wherein said surgical head includes a drill tip, the operating of said head including pushing said drill tip into said myocardium tissue and rotating said drill tip during said step of pushing.

12. The method set forth in claim 1 wherein the operating of said surgical head is

implemented during diastole.

13. The method set forth in claim 12, further comprising operating a computer to synchronize the operating of said surgical head with the rhythm of said heart.

14. The method set forth in claim 1 wherein said surgical head is operated so that said recess extends only partially through said myocardium tissue from a coronary artery of the patient.

15. The method set forth in claim 1 wherein said surgical head is operated so that said recess extends only partially through said myocardium tissue from the left ventricle of the patient.

16. A method for supplying blood to the heart, comprising the step of directing blood directly into the myocardium via at least one recess formed surgically in the myocardium and extending only partially through the myocardium and only within the myocardium.

17. The method set forth in claim 16 wherein said step of directing includes the steps of, during diastole, guiding blood into said myocardium through said recess and, during systole, closing said recess.